

Notice of Allowability

Application No.

10/631,958

Examiner

Maryam Monshipouri

Applicant(s)

KOSSIDA ET AL.

Art Unit

1653

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☐ This communication is responsive to _____.
2. ☒ The allowed claim(s) is/are 10,12,13,14 and 23.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date filed 8/1/03
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☒ Interview Summary (PTO-413),
Paper No./Mail Date 9/14/05
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☒ Other See Continuation Sheet.

Continuation of Attachment(s) 9. Other: see attachments to interview summary.

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An **Examiner's Amendment** to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

Authorization for this Examiner's Amendment was given in a telephone interview with Ms. Lisa M. Hemmendinger, on 9/15/2005.

Examiner's Amendment to the Claims

Cancel claims 11 and 15.

In claim 10, line 2, after "consisting of " delete "(a) ".

In claim 10, line 2, after "SEQ ID NOS:", delete "2".

In claim 10, lines 2-3, delete "and (b) biologically active variants thereof ".

In claim 14, line 2, after "consisting of " delete "(a) ".

In claim 14, line 3, after "SEQ ID NOS:", delete "2".

In claim 14, after "10," , delete "or", and substitute therefor --- and ---.

In claim 14, line 3, delete "and (b) biologically active variants thereof".

In claim 23, line 3, after "SEQ ID NOS:", delete "2".

In claim 23, line 2, after "consisting of " delete "(a) ".

In claim 23, line 3, after "11", delete ", and (b) biologically active variants thereof".

In claim 23, line 6, delete " claim 21' and substitute therefor --- detecting said polypeptide comprising the steps of: contacting a biological sample with said antibody to form a reagent –polypeptide complex; and

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detecting the antibody-polypeptide complex. ---.

This application is in condition for allowance except for the presence of claims 1-9, 16-22, 24-77 drawn to non-elected without traverse. Accordingly, claims 1-9, 16-22, 24-77 have been cancelled.

Cancel claims 1-9, 16-22, 24-77.

Examiner's Amendments to the Specification

In page 1, line 2, after "October 4, 2001," insert --- now abandoned ---.

The following is an **Examiner's Statement of Reasons for Allowance**:

Claims 10, 12-14 and 23 are directed to an isolated ceramide kinase of specific amino acid sequence and a specifically claimed fragment thereof with said activity, fusion proteins and kits comprising said polypeptides.

Claimed ceramide kinase and said fragment thereof are free of prior art. Further the prior art does not teach or suggest preparing such specifically claimed products. Hence said products are also novel and non-obvious.

Since said polypeptides are both novel and non-obvious fusion proteins and kits comprising said polypeptides are also novel and non-obvious.

Claims 10, 12-14 and 23 are allowed.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Maryam Monshipouri whose telephone number is (571) 272-0932. The examiner can normally be reached on 7:00 a.m to 4:30 p.m. except for alternate Mondays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Weber Jon P. can be reached on (571) 272-0925. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Maryam Monshipouri Ph.D.

Primary Examiner

GenCore version 5.1.6
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OM protein - protein search, using sw model

Run on: September 3, 2005, 04:08:02; Search time 64.5137 Seconds
(without alignments)
1990.064 Million cell updates/sec

Title: US-10-631-958-2

Perfect score: 1717

Sequence: 1 PKHLLVFINFGKGQKRI.....KCSRNFRLRHTNQDQ 326

Scoring table: BLOSUM62

Gapop 10.0, Gapext 0.5

Searched: 1774312 seqs, 393823214 residues

Total number of hits satisfying chosen parameters: 1774312

Minimum DB seq length: 0

Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%

Maximum Match 100%

Listing first 45 summaries

Database: Published Applications AA:

- 1: /cgn2_6/ptodata/2/pubaa/US07_PUBCOMB.pep.*
- 2: /cgn2_6/ptodata/2/pubaa/PCT_NEW_PUB.pep.*
- 3: /cgn2_6/ptodata/2/pubaa/US06_NEW_PUB.pep.*
- 4: /cgn2_6/ptodata/2/pubaa/US06_PUBCOMB.pep.*
- 5: /cgn2_6/ptodata/2/pubaa/US07_NEW_PUB.pep.*
- 6: /cgn2_6/ptodata/2/pubaa/PCTUS_PUBCOMB.pep.*
- 7: /cgn2_6/ptodata/2/pubaa/US08_NEW_PUB.pep.*
- 8: /cgn2_6/ptodata/2/pubaa/US08_PUBCOMB.pep.*
- 9: /cgn2_6/ptodata/2/pubaa/US09A_PUBCOMB.pep.*
- 10: /cgn2_6/ptodata/2/pubaa/US09B_PUBCOMB.pep.*
- 11: /cgn2_6/ptodata/2/pubaa/US09C_PUBCOMB.pep.*
- 12: /cgn2_6/ptodata/2/pubaa/US09_NEW_PUB.pep.*
- 13: /cgn2_6/ptodata/2/pubaa/US10A_PUBCOMB.pep.*
- 14: /cgn2_6/ptodata/2/pubaa/US10B_PUBCOMB.pep.*
- 15: /cgn2_6/ptodata/2/pubaa/US10C_PUBCOMB.pep.*
- 16: /cgn2_6/ptodata/2/pubaa/US10D_PUBCOMB.pep.*
- 17: /cgn2_6/ptodata/2/pubaa/US10E_PUBCOMB.pep.*
- 18: /cgn2_6/ptodata/2/pubaa/US10_NEW_PUB.pep.*
- 19: /cgn2_6/ptodata/2/pubaa/US11A_PUBCOMB.pep.*
- 20: /cgn2_6/ptodata/2/pubaa/US11_NEW_PUB.pep.*
- 21: /cgn2_6/ptodata/2/pubaa/US60_NEW_PUB.pep.*
- 22: /cgn2_6/ptodata/2/pubaa/US60_PUBCOMB.pep.*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	ID	Description
1	1717	100.0	326	9 US-09-784-810A-11	Sequence 11, Appli
2	1717	100.0	326	16 US-09-965-425-2	Sequence 2, Appli
3	1717	100.0	326	16 US-10-531-538-2	Sequence 2, Appli
4	1717	100.0	326	18 US-10-531-538-2	Sequence 11, Appli
5	1717	100.0	471	9 US-09-784-810A-11	Sequence 6, Appli
6	1717	100.0	471	18 US-10-531-538-2	Sequence 6, Appli
7	1640.5	95.5	537	10 US-09-784-810A-11	Sequence 10, Appli
8	1640.5	95.5	537	15 US-09-784-810A-11	Sequence 40, Appli
9	1640.5	95.5	537	16 US-09-784-810A-11	Sequence 10, Appli
10	1640.5	95.5	537	16 US-09-784-810A-11	Sequence 121, App
11	1640.5	95.5	562	10 US-09-784-810A-11	Sequence 11, Appli

RESULT 1

US-09-784-810A-11

; Sequence 11 Application US/09784810A

; Patent No. US20020082203A1

; GENERAL INFORMATION:

; APPLICANT: RASTELLI, LUCA

; TITLE OF INVENTION: NOVEL SPHINGOSINE KINASES AND NUCLEIC ACIDS ENCODING

; TITLE OF INVENTION: SAME

; FILE REFERENCE: 10716-08

; CURRENT APPLICATION NUMBER: US/09/784,810A

; CURRENT FILING DATE: 2001-02-14

; PRIOR APPLICATION NUMBER: 60/182,360

; PRIOR FILING DATE: 2000-02-14

; PRIOR APPLICATION NUMBER: 60/191,261

; PRIOR FILING DATE: 2000-03-22

; NUMBER OF SEQ ID NOS: 29

; SOFTWARE: Patent In Ver. 2.1

; SEQ ID NO 11

; LENGTH: 326

; TYPE: PRT

; ORGANISM: Homo sapiens

US-09-784-810A-11

Query Match 100.0%; Score 1717; DB 9; Length 326;

Best Local Similarity 100.0%; Pred. No. 2.8e-172; Indels 0; Gaps 0;

Matches 326; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 PKHLLVFINFGKGQKRIYKRVAPLFTLASITTDIGNKFKYVTVTEHANQAKE 60

Db 1 PKHLLVFINFGKGQKRIYKRVAPLFTLASITTDIGNKFKYVTVTEHANQAKE 60

Qy 61 TLVEINIDKVDGIVCVGGDGMFSEVLHGLIGRTQRSAGVDQNHPRVAVLPVSSLRIGIIPA 120

Db 61 TLVEINIDKVDGIVCVGGDGMFSEVLHGLIGRTQRSAGVDQNHPRVAVLPVSSLRIGIIPA 120

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Attachment

Matches 537; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 MGATGAAPLQSVLWVKQRCVSLPARALLRWRSPPGAGACADACSVPSIIIV 60
Db 26 MGATGAAPLQSVLWVKQRCVSLPARALLRWRSPPGAGACADACSVPSIIIV 85
QY 61 EETDVHGKHQSGKQKMEKPYAFTVHCVRARRHWKWAQVTFWCPPEQLCHLWLTQLR 120
Db 86 EETDVHGKHQSGKQKMEKPYAFTVHCVRARRHWKWAQVTFWCPPEQLCHLWLTQLR 145
QY 121 EMLEKLTSPKHLVFINPFGKGQKRIYERKVAFLFTLASITTDIIIVTEHANOAKETL 180
Db 146 EMLEKLTSPKHLVFINPFGKGQKRIYERKVAFLFTLASITTDIIIVTEHANOAKETL 205
QY 181 YEINIDKYDGIIVCVGGDMFSEVLHGLIGRTORSAGVDQNHPRVLPVPSLRIGIIPAGS 240
Db 206 YEINIDKYDGIIVCVGGDMFSEVLHGLIGRTORSAGVDQNHPRVLPVPSLRIGIIPAGS 265
QY 241 TDCVCYSTVGTSDAETSAHIIIVGDSLAMDVSVHHNSTLLRYSVSLGFGYGDIIKDS 300
Db 266 TDCVCYSTVGTSDAETSAHIIIVGDSLAMDVSVHHNSTLLRYSVSLGFGYGDIIKDS 325
QY 301 EKKRWGLARYDFSGKLTFLSHHCYEGTVSPLPAQHTVGSPPDRKPCRCAGCFVCRQSKQ 360
Db 326 EKKRWGLARYDFSGKLTFLSHHCYEGTVSPLPAQHTVGSPPDRKPCRCAGCFVCRQSKQ 385
QY 361 LEEQKALYGLEAAEDVEEQQVCGKFLAINATNMSCACRRSPRGLSPAHLGDGSSDL 420
Db 386 LEEQKALYGLEAAEDVEEQQVCGKFLAINATNMSCACRRSPRGLSPAHLGDGSSDL 445
QY 421 ILIRKCSRFNRLFLIRHTNQDQDFTFVEVYRVKQFQTSKMEDESDLKEGGKKRF 480
Db 446 ILIRKCSRFNRLFLIRHTNQDQDFTFVEVYRVKQFQTSKMEDESDLKEGGKKRF 505
QY 481 GHICSSHPSCCTVSNSSNMCDGEVLHSPAIEVRVHCOLVRLFARGIEENPKPDSHS 537
Db 506 GHICSSHPSCCTVSNSSNMCDGEVLHSPAIEVRVHCOLVRLFARGIEENPKPDSHS 562

RESULT 6
US-10-631-958-11
; Sequence 11, Application US/10631958
; Publication No. US20040192580A1
; GENERAL INFORMATION:
; APPLICANT: Kossida, Sophia
; TITLE OF INVENTION: Regulation of human Sphingosine
; FILE REFERENCE: 004974.00594
; CURRENT APPLICATION NUMBER: US/10/631,958
; CURRENT FILING DATE: 2003-08-01
; PRIOR APPLICATION NUMBER: US/09/969,896
; PRIOR FILING DATE: 2001-10-04
; PRIOR APPLICATION NUMBER: US 60/238,005
; PRIOR FILING DATE: 2000-10-06
; PRIOR APPLICATION NUMBER: US 60/314,113
; PRIOR FILING DATE: 2001-08-23
; NUMBER OF SEQ ID NOS: 16
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 11
; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-631-958-11

Query Match 100.0%; Score 2888; DB 16; Length 562;
Best Local Similarity 100.0%; Pred. No. 3,2e-278;
Matches 537; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 MGATGAAPLQSVLWVKQRCVSLPARALLRWRSPPGAGACADACSVPSIIIV 60
Db 26 MGATGAAPLQSVLWVKQRCVSLPARALLRWRSPPGAGACADACSVPSIIIV 85
QY 61 EETDVHGKHQSGKQKMEKPYAFTVHCVRARRHWKWAQVTFWCPPEQLCHLWLTQLR 120

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86 EETDVHGKHQSGKQKMEKPYAFTVHCVRARRHWKWAQVTFWCPPEQLCHLWLTQLR 145
121 EMLEKLTSPKHLVFINPFGKGQKRIYERKVAFLFTLASITTDIIIVTEHANOAKETL 180
146 EMLEKLTSPKHLVFINPFGKGQKRIYERKVAFLFTLASITTDIIIVTEHANOAKETL 205
181 YEINIDKYDGIIVCVGGDMFSEVLHGLIGRTORSAGVDQNHPRVLPVPSLRIGIIPAGS 240
206 YEINIDKYDGIIVCVGGDMFSEVLHGLIGRTORSAGVDQNHPRVLPVPSLRIGIIPAGS 265
241 TDCVCYSTVGTSDAETSAHIIIVGDSLAMDVSVHHNSTLLRYSVSLGFGYGDIIKDS 300
266 TDCVCYSTVGTSDAETSAHIIIVGDSLAMDVSVHHNSTLLRYSVSLGFGYGDIIKDS 325
301 EKKRWGLARYDFSGKLTFLSHHCYEGTVSPLPAQHTVGSPPDRKPCRCAGCFVCRQSKQ 360
326 EKKRWGLARYDFSGKLTFLSHHCYEGTVSPLPAQHTVGSPPDRKPCRCAGCFVCRQSKQ 385
361 LEEQKALYGLEAAEDVEEQQVCGKFLAINATNMSCACRRSPRGLSPAHLGDGSSDL 420
386 LEEQKALYGLEAAEDVEEQQVCGKFLAINATNMSCACRRSPRGLSPAHLGDGSSDL 445
421 ILIRKCSRFNRLFLIRHTNQDQDFTFVEVYRVKQFQTSKMEDESDLKEGGKKRF 480
446 ILIRKCSRFNRLFLIRHTNQDQDFTFVEVYRVKQFQTSKMEDESDLKEGGKKRF 505
481 GHICSSHPSCCTVSNSSNMCDGEVLHSPAIEVRVHCOLVRLFARGIEENPKPDSHS 537
506 GHICSSHPSCCTVSNSSNMCDGEVLHSPAIEVRVHCOLVRLFARGIEENPKPDSHS 562

RESULT 7
US-10-315-597A-2
; Sequence 2, Application US/10315597A
; Publication No. US20030162206A1
; GENERAL INFORMATION:
; APPLICANT: Sugiura, Masako
; APPLICANT: Kono, Keita
; APPLICANT: Kohama, Takafumi
; TITLE OF INVENTION: Ceramide Kinase and DNA Encoding It
; FILE REFERENCE: 02658CIP/HG
; CURRENT APPLICATION NUMBER: US/10/315,597A
; CURRENT FILING DATE: 2002-12-10
; PRIOR APPLICATION NUMBER: JP 2000-178039
; PRIOR FILING DATE: 2000-06-14
; NUMBER OF SEQ ID NOS: 4
; SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 2
; LENGTH: 537
; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-315-597A-2

Query Match 99.7%; Score 2880; DB 14; Length 537;
Best Local Similarity 99.6%; Pred. No. 1.9e-277;
Matches 535; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

QY 1 MGATGAAPLQSVLWVKQRCVSLPARALLRWRSPPGAGACADACSVPSIIIV 60
Db 1 MGATGAAPLQSVLWVKQRCVSLPARALLRWRSPPGAGACADACSVPSIIIV 60
QY 61 EETDVHGKHQSGKQKMEKPYAFTVHCVRARRHWKWAQVTFWCPPEQLCHLWLTQLR 120
Db 61 EETDVHGKHQSGKQKMEKPYAFTVHCVRARRHWKWAQVTFWCPPEQLCHLWLTQLR 120
QY 121 EMLEKLTSPKHLVFINPFGKGQKRIYERKVAFLFTLASITTDIIIVTEHANOAKETL 180
Db 121 EMLEKLTSPKHLVFINPFGKGQKRIYERKVAFLFTLASITTDIIIVTEHANOAKETL 180
QY 181 YEINIDKYDGIIVCVGGDMFSEVLHGLIGRTORSAGVDQNHPRVLPVPSLRIGIIPAGS 240
Db 181 YEINIDKYDGIIVCVGGDMFSEVLHGLIGRTORSAGVDQNHPRVLPVPSLRIGIIPAGS 240

QY 241 TDCVCYSTGTSDAETSALHIVVGDLSAMDVSSVHHNSTLLRYSVSLGFGYGDIIKDS 300
DB 241 TDCVCYSTGTSDAETSALHIVVGDLSAMDVSSVHHNSTLLRYSVSLGFGYGDIIKDS 300
QY 301 EKKRWGLARYDPSGLKTFSLSHCYEGTVSFLPAQHTVGSPRDKPCRCAGCFVCROSKQ 360
DB 301 EKKRWGLARYDPSGLKTFSLSHCYEGTVSFLPAQHTVGSPRDKPCRCAGCFVCROSKQ 360
QY 361 LEEEOKALYGLAAEDVEEWQVCGKFLAINATNMSCACRRSPRGLSPAHLGDGSSDL 420
DB 361 LEEEOKALYGLAAEDVEEWQVCGKFLAINATNMSCACRRSPRGLSPAHLGDGSSDL 420
QY 421 ILIRKSRNFLRLIRHTNQDQDFTFVEVYRVKFKQFTSKHMEDESDLKEGGKRF 480
DB 421 ILIRKSKENFLRLIRHTNQDQDFTFVEVYRVKFKQFTSKHMEDESDLKEGGKRF 480
QY 481 GHICSSHPSCCTVSNSSWNCDEVLHSPAIEVRVHCOLVRLFARGIEENPKPDSHS 537
DB 481 GHICSSHPSCCTVSNSSWNCDEVLHSPAIEVRVHCOLVRLFARGIEENPKPDSHS 537

RESULT 8

US-09-784-810A-6
; Sequence 6, Application US/09784810A
; Patent No. US20020082203A1
; GENERAL INFORMATION:
; APPLICANT: RASTELLI, LUCA
; TITLE OF INVENTION: NOVEL SPHINGOSINE KINASES AND NUCLEIC ACIDS ENCODING
; FILE REFERENCE: 10716-08
; CURRENT APPLICATION NUMBER: US/09/784,810A
; PRIOR FILING DATE: 2001-02-14
; PRIOR FILING DATE: 2000-02-14
; PRIOR FILING DATE: 2000-02-14
; PRIOR FILING DATE: 2000-03-22
; NUMBER OF SEQ ID NOS: 29
; SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 6
; LENGTH: 471
; TYPE: PRT
; ORGANISM: Homo sapiens
US-09-784-810A-6

Query Match 85.1%; Score 2456.5; DB 9; Length 471;
Best Local Similarity 97.5%; Pred. No. 2.4e-235;
Matches 459; Conservative 1; Mismatches 0; Indels 11; Gaps 1;

QY 78 MEKPYAFTVHCVRARRHRKWAQVTFWCPPEEQCHLWLQTLREMLEKLTSPKHLVFI 137
DB 1 MEKPYAFTVHCVRARRHRKWAQVTFWCPPEEQCHLWLQTLREMLEKLTSPKHLVFI 60
QY 138 NPPGGKGQKRIYERKVAFLFTLASITTDII-----VTEHANOAKETLYEINID 186
DB 61 NPPGGKGQKRIYERKVAFLFTLASITTDIIIGNKFVYVVEVITEHANOAKETLYEINID 120
QY 187 KYDGI VCGDGMFSEVLHGLIGRTORSAGVDQNHPRVAVLPSSLRIGIIPAGSTDCVCY 246
DB 121 KYDGI VCGDGMFSEVLHGLIGRTORSAGVDQNHPRVAVLPSSLRIGIIPAGSTDCVCY 180
QY 247 STVGTSDAETSALHIVVGDLSAMDVSSVHHNSTLLRYSVSLGFGYGDIIKDSEKRWL 306
DB 181 STVGTSDAETSALHIVVGDLSAMDVSSVHHNSTLLRYSVSLGFGYGDIIKDSEKRWL 240
QY 307 GLARYDPSGLKTFSLSHCYEGTVSFLPAQHTVGSPRDKPCRCAGCFVCROSKQLEBEQ 366
DB 241 GLARYDPSGLKTFSLSHCYEGTVSFLPAQHTVGSPRDKPCRCAGCFVCROSKQLEBEQ 300
QY 367 KALYGLAAEDVEEWQVCGKFLAINATNMSCACRRSPRGLSPAHLGDGSSDLILIRK 426
DB 301 KALYGLAAEDVEEWQVCGKFLAINATNMSCACRRSPRGLSPAHLGDGSSDLILIRK 360

QY 427 SRPNFLRLIRHTNQDQDFTFVEVYRVKFKQFTSKHMEDESDLKEGGKRFHICSS 486
DB 361 SRPNFLRLIRHTNQDQDFTFVEVYRVKFKQFTSKHMEDESDLKEGGKRFHICSS 420
QY 487 HPSCCCTVSNSSWNCDEVLHSPAIEVRVHCOLVRLFARGIEENPKPDSHS 537
DB 421 HPSCCCTVSNSSWNCDEVLHSPAIEVRVHCOLVRLFARGIEENPKPDSHS 471

RESULT 9

US-10-876-281-6
; Sequence 6, Application US/10876281
; Publication No. US20050123942A1
; GENERAL INFORMATION:
; APPLICANT: RASTELLI, LUCA
; TITLE OF INVENTION: NOVEL SPHINGOSINE KINASES AND NUCLEIC ACIDS ENCODING
; FILE REFERENCE: 10716-08
; CURRENT APPLICATION NUMBER: US/10/876,281
; PRIOR FILING DATE: 2004-06-24
; PRIOR FILING DATE: US/09/784,810
; PRIOR FILING DATE: 2001-02-14
; PRIOR FILING DATE: 2000-02-14
; PRIOR FILING DATE: 2000-02-14
; PRIOR FILING DATE: 2000-03-22
; NUMBER OF SEQ ID NOS: 29
; SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 6
; LENGTH: 471
; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-876-281-6

Query Match 85.1%; Score 2456.5; DB 18; Length 471;
Best Local Similarity 97.5%; Pred. No. 2.4e-235;
Matches 459; Conservative 1; Mismatches 0; Indels 11; Gaps 1;

QY 78 MEKPYAFTVHCVRARRHRKWAQVTFWCPPEEQCHLWLQTLREMLEKLTSPKHLVFI 137
DB 1 MEKPYAFTVHCVRARRHRKWAQVTFWCPPEEQCHLWLQTLREMLEKLTSPKHLVFI 60
QY 138 NPPGGKGQKRIYERKVAFLFTLASITTDII-----VTEHANOAKETLYEINID 186
DB 61 NPPGGKGQKRIYERKVAFLFTLASITTDIIIGNKFVYVVEVITEHANOAKETLYEINID 120
QY 187 KYDGI VCGDGMFSEVLHGLIGRTORSAGVDQNHPRVAVLPSSLRIGIIPAGSTDCVCY 246
DB 121 KYDGI VCGDGMFSEVLHGLIGRTORSAGVDQNHPRVAVLPSSLRIGIIPAGSTDCVCY 180
QY 247 STVGTSDAETSALHIVVGDLSAMDVSSVHHNSTLLRYSVSLGFGYGDIIKDSEKRWL 306
DB 181 STVGTSDAETSALHIVVGDLSAMDVSSVHHNSTLLRYSVSLGFGYGDIIKDSEKRWL 240
QY 307 GLARYDPSGLKTFSLSHCYEGTVSFLPAQHTVGSPRDKPCRCAGCFVCROSKQLEBEQ 366
DB 241 GLARYDPSGLKTFSLSHCYEGTVSFLPAQHTVGSPRDKPCRCAGCFVCROSKQLEBEQ 300
QY 367 KALYGLAAEDVEEWQVCGKFLAINATNMSCACRRSPRGLSPAHLGDGSSDLILIRK 426
DB 301 KALYGLAAEDVEEWQVCGKFLAINATNMSCACRRSPRGLSPAHLGDGSSDLILIRK 360
QY 427 SRPNFLRLIRHTNQDQDFTFVEVYRVKFKQFTSKHMEDESDLKEGGKRFHICSS 486
DB 361 SRPNFLRLIRHTNQDQDFTFVEVYRVKFKQFTSKHMEDESDLKEGGKRFHICSS 420
QY 487 HPSCCCTVSNSSWNCDEVLHSPAIEVRVHCOLVRLFARGIEENPKPDSHS 537
DB 421 HPSCCCTVSNSSWNCDEVLHSPAIEVRVHCOLVRLFARGIEENPKPDSHS 471

RESULT 10

US-09-784-810A-11

Attachment

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Qy 326 EKKRWGLARYDFSLGKTLFSLHCHYEGTVSFLPAQHTVGSPRDRKPCBAGCFVCRQSKQ 385
Db 301 EKKRWGLARYDFSLGKTLFSLHCHYEGTVSFLPAQHTVGSPRDRKPCBAGCFVCRQSKQ 360
Qy 386 LEEBQKALYGLEAAEDVEEQVCGKFLAINATMSCACRRSPRGLSPAHLGDGSSDL 445
Db 361 LEEBQKALYGLEAAEDVEEQVCGKFLAINATMSCACRRSPRGLSPAHLGDGSSDL 420
Qy 446 ILIRKCSRNFRLRLIRHTNQDQDFTFVEVYRVKVKFQFTSKHMEDESDLKEGGKRF 505
Db 421 ILIRKCSRNFRLRLIRHTNQDQDFTFVEVYRVKVKFQFTSKHMEDESDLKEGGKRF 480
Qy 506 GHICSSHPSCCCTVSNSSWNCDEVLHSPAIEVRVHCOLVRLFARGIEENPKPDSSH 562
Db 481 GHICSSHPSCCCTVSNSSWNCDEVLHSPAIEVRVHCOLVRLFARGIEENPKPDSSH 537

RESULT 11
US-10-631-958-10
; Sequence 10, Application US/10631958
; GENERAL INFORMATION:
; APPLICANT: Kossida, Sophia
; TITLE OF INVENTION: Regulation of human Sphingosine
; FILE REFERENCE: 004974.00594
; CURRENT APPLICATION NUMBER: US/10/631,958
; CURRENT FILING DATE: 2003-08-01
; PRIOR APPLICATION NUMBER: US/09/969,896
; PRIOR FILING DATE: 2001-10-04
; PRIOR APPLICATION NUMBER: US 60/238,005
; PRIOR FILING DATE: 2000-10-06
; PRIOR APPLICATION NUMBER: US 60/314,113
; PRIOR FILING DATE: 2001-08-23
; NUMBER OF SEQ ID NOS: 16
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 10
; LENGTH: 537
; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-631-958-10

Query Match 95.5%; Score 2888; DB 32; Length 537;
Best Local Similarity 100.0%; Pred. No. 5e-279;
Matches 537; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 26 MGATCAAEPLQSVLVWVKQRCVSLPAPARALLRWRSFGPGAGAGADACSVPSVSEIIAV 85
Db 1 MGATCAAEPLQSVLVWVKQRCVSLPAPARALLRWRSFGPGAGAGADACSVPSVSEIIAV 60
Qy 86 BETDVHGHQSGKQKWKPKYAFVTVHCVKRRARRHWKWAQVTFWCPBEOQLCHLWLTQLR 145
Db 61 BETDVHGHQSGKQKWKPKYAFVTVHCVKRRARRHWKWAQVTFWCPBEOQLCHLWLTQLR 120
Qy 146 EMLEKLTSPKHLVPIFPFGKGQGGKIYERKVAFLFTLASITTTDIIIVTEHANOAKETL 205
Db 121 EMLEKLTSPKHLVPIFPFGKGQGGKIYERKVAFLFTLASITTTDIIIVTEHANOAKETL 180
Qy 206 YEINIDKYDGI VCVGDCGMFSEVLHGLIGRTQRSAGVDQNHPRVLPVPSLRIGIIPAGS 265
Db 181 YEINIDKYDGI VCVGDCGMFSEVLHGLIGRTQRSAGVDQNHPRVLPVPSLRIGIIPAGS 240
Qy 266 TDCVCYSTVGTSDAETSALHIVVGDSLAMDVSSVHNNSTLLRYSVSLLYGYFYGDIIKDS 325
Db 241 TDCVCYSTVGTSDAETSALHIVVGDSLAMDVSSVHNNSTLLRYSVSLLYGYFYGDIIKDS 300
Qy 326 EKKRWGLARYDFSLGKTLFSLHCHYEGTVSFLPAQHTVGSPRDRKPCBAGCFVCRQSKQ 385
Db 301 EKKRWGLARYDFSLGKTLFSLHCHYEGTVSFLPAQHTVGSPRDRKPCBAGCFVCRQSKQ 360
Qy 206 YEINIDKYDGI VCVGDCGMFSEVLHGLIGRTQRSAGVDQNHPRVLPVPSLRIGIIPAGS 265
Db 181 YEINIDKYDGI VCVGDCGMFSEVLHGLIGRTQRSAGVDQNHPRVLPVPSLRIGIIPAGS 240
Qy 266 TDCVCYSTVGTSDAETSALHIVVGDSLAMDVSSVHNNSTLLRYSVSLLYGYFYGDIIKDS 325
Db 241 TDCVCYSTVGTSDAETSALHIVVGDSLAMDVSSVHNNSTLLRYSVSLLYGYFYGDIIKDS 300
Qy 326 EKKRWGLARYDFSLGKTLFSLHCHYEGTVSFLPAQHTVGSPRDRKPCBAGCFVCRQSKQ 385
Db 301 EKKRWGLARYDFSLGKTLFSLHCHYEGTVSFLPAQHTVGSPRDRKPCBAGCFVCRQSKQ 360
Qy 386 LEEBQKALYGLEAAEDVEEQVCGKFLAINATMSCACRRSPRGLSPAHLGDGSSDL 445
Db 361 LEEBQKALYGLEAAEDVEEQVCGKFLAINATMSCACRRSPRGLSPAHLGDGSSDL 420
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Qy 446 ILIRKCSRNFRLRLIRHTNQDQDFTFVEVYRVKVKFQFTSKHMEDESDLKEGGKRF 505
Db 421 ILIRKCSRNFRLRLIRHTNQDQDFTFVEVYRVKVKFQFTSKHMEDESDLKEGGKRF 480
Qy 506 GHICSSHPSCCCTVSNSSWNCDEVLHSPAIEVRVHCOLVRLFARGIEENPKPDSSH 562
Db 481 GHICSSHPSCCCTVSNSSWNCDEVLHSPAIEVRVHCOLVRLFARGIEENPKPDSSH 537

RESULT 12
US-10-315-597A-2
; Sequence 2, Application US/10315597A
; GENERAL INFORMATION:
; APPLICANT: Sugiura, Masako
; APPLICANT: Kono, Keita
; APPLICANT: Kohama, Takafumi
; TITLE OF INVENTION: Ceramide Kinase and DNA Encoding It
; FILE REFERENCE: 02658CIP/HG
; CURRENT APPLICATION NUMBER: US/10/315,597A
; CURRENT FILING DATE: 2002-12-10
; PRIOR APPLICATION NUMBER: JP 2000-178039
; PRIOR FILING DATE: 2000-06-14
; NUMBER OF SEQ ID NOS: 4
; SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 2
; LENGTH: 537
; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-315-597A-2

Query Match 95.2%; Score 2880; DB 29; Length 537;
Best Local Similarity 99.6%; Pred. No. 3.2e-278;
Matches 535; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

Qy 26 MGATCAAEPLQSVLVWVKQRCVSLPAPARALLRWRSFGPGAGAGADACSVPSVSEIIAV 85
Db 1 MGATCAAEPLQSVLVWVKQRCVSLPAPARALLRWRSFGPGAGAGADACSVPSVSEIIAV 60
Qy 86 BETDVHGHQSGKQKWKPKYAFVTVHCVKRRARRHWKWAQVTFWCPBEOQLCHLWLTQLR 145
Db 61 BETDVHGHQSGKQKWKPKYAFVTVHCVKRRARRHWKWAQVTFWCPBEOQLCHLWLTQLR 120
Qy 146 EMLEKLTSPKHLVPIFPFGKGQGGKIYERKVAFLFTLASITTTDIIIVTEHANOAKETL 205
Db 121 EMLEKLTSPKHLVPIFPFGKGQGGKIYERKVAFLFTLASITTTDIIIVTEHANOAKETL 180
Qy 206 YEINIDKYDGI VCVGDCGMFSEVLHGLIGRTQRSAGVDQNHPRVLPVPSLRIGIIPAGS 265
Db 181 YEINIDKYDGI VCVGDCGMFSEVLHGLIGRTQRSAGVDQNHPRVLPVPSLRIGIIPAGS 240
Qy 266 TDCVCYSTVGTSDAETSALHIVVGDSLAMDVSSVHNNSTLLRYSVSLLYGYFYGDIIKDS 325
Db 241 TDCVCYSTVGTSDAETSALHIVVGDSLAMDVSSVHNNSTLLRYSVSLLYGYFYGDIIKDS 300
Qy 326 EKKRWGLARYDFSLGKTLFSLHCHYEGTVSFLPAQHTVGSPRDRKPCBAGCFVCRQSKQ 385
Db 301 EKKRWGLARYDFSLGKTLFSLHCHYEGTVSFLPAQHTVGSPRDRKPCBAGCFVCRQSKQ 360
Qy 386 LEEBQKALYGLEAAEDVEEQVCGKFLAINATMSCACRRSPRGLSPAHLGDGSSDL 445
Db 361 LEEBQKALYGLEAAEDVEEQVCGKFLAINATMSCACRRSPRGLSPAHLGDGSSDL 420
Qy 446 ILIRKCSRNFRLRLIRHTNQDQDFTFVEVYRVKVKFQFTSKHMEDESDLKEGGKRF 505
Db 421 ILIRKCSRNFRLRLIRHTNQDQDFTFVEVYRVKVKFQFTSKHMEDESDLKEGGKRF 480
Qy 506 GHICSSHPSCCCTVSNSSWNCDEVLHSPAIEVRVHCOLVRLFARGIEENPKPDSSH 562
Db 481 GHICSSHPSCCCTVSNSSWNCDEVLHSPAIEVRVHCOLVRLFARGIEENPKPDSSH 537

RESULT 13
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